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ABSTRACT

This paper reports findings from the first two years of a 3-year study to evaluate the effects of court-ordered busing in Waco, Texas. The objective of this study is to determine minority student achievement gains or losses, attitudes toward busing and school desegregation, the degree of interracial cooperation and acceptance in Waco schools, and the effect of busing on each of the above. Two items in the Equality of Educational Opportunity Survey were used to identify the interracial climate of participating schools: intergroup hostility and interracial friendship. The primary question for this paper is: Do differences in students' perceptions of the interracial climate of the school relate to differences in individual student achievement? The original sample, drawn in the spring of 1971, consisted of a stratified random sample of seventh and eighth grade students. Approximately 240 minority students from that sample were bused to Waco Independent School District schools. The overall design of the study is that of a 3-year longitudinal panel. Data reported in this paper are from the first and second waves of collection (spring of 1971 and 1972). Multiple regression analysis is used since it allows one to weight the relative effects of contextual and individual attributes with all other factors controlled. (Author/JM)

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# BUSING, DESEGREGATION AND STUDENT SELF-CONCEPT

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Court-ordered, cross-town busing to achieve school desegregation has been a critical political issue in many communities. The political nature of this issue has clouded efforts to objectively evaluate the effects of such procedures. The position of the Supreme Court in the 1954 decision held that segregated schools worked adversely against the achievement of black students by lowering motivational levels. Support for this position was provided by the Equality of Educational Opportunity Survey (EEOS) which reported black students achievement to be higher in schools with a student body having a high proportion of white students. The EEOS report, however, did not clearly disentangle the effects of race and class. Cohen, Pettigrew and Riley (1972) suggest that the Report's conclusions about the academic benefits of racial integration are actually a function of social class. A reanalysis of the EEOS data by the U.S. Commission on Civil Rights reports student achievement is positively benefitted by racial desegregation, even with the effects of social class controlled (U.S. Commission on Civil Rights, 1967).

A variety of smaller studies have reported racial desegregation is beneficial to minority student achievement. Two limitations to these studies are commonly observed, however. One, most fail to adequately separate the effects of race and class. Two, most studies have been based on school situations in which desegregation has been based on school situations in which desegregation has been achieved slowly and voluntarily. Few studies have evaluated the effects of court-ordered busing to achieve rapid school desegregation so that the question of whether busing is the best or even an appropriate means to achieve equality of educational opportunity remains unanswered. This paper reports findings from the first two years of a three year study to evaluate

the effects of court-ordered busing in Waco, Texas. The objective of this study is to determine minority student achievement gains or losses, attitudes toward busing and school desegregation, the degree of interracial cooperation and acceptance in Waco schools and the effect of busing on each of the above.

MAJOR HYPOTHESIS

Much of the literature on the performance of black students in biracial situations has been based on laboratory experiments. The results of such experiments has led to the utilization of the concept of an interracial climate. As Pettigrew suggests, interracial contact in schools may range from acceptance to hostility. The interracial climate of racially mixed schools ranges from desegregated conditions to integrated conditions. Desegregated conditions are defined as those in which interracial contact is minimal and tense. Integrated conditions are defined as those in which interracial contact is friendly, of equal status and pervasive. Katz (1968) concludes that the type of interracial climate which maximizes the achievement of black students is that in which an atmosphere of genuine respect and acceptance prevails, i.e., an integrated interracial climate.

Two items in the EEOS survey were used to identify the interracial climate of participating schools: intergroup hostility and interracial friendship. Of course, these measures were used to analyze average school differences in achievement, not individual differences. The same principles, however, may be applied on the individual level. The primary question for this pape is not whether differences among school interracial climates are related to differences in average achievement levels. The question is do differences in student's perceptions of the interracial climate of the school relate to differences in individual student achievement. If the political nature of the procedure used to achieve racial desegregation creates a negative and hostile interracial

climate, then the results of such procedures will be ineffectual for changing minority student achievement performance. The major hypothesis of this paper is that academic performance of bused students is highly influenced by the perceived interracial climate of acceptance of the receiving school and by the attitudes of the individual student toward busing in particular and desegration in general.

METHODS

The first and original wave of data collection occurred in the spring of 1971, for the purpose of studying the determinants of majority and minority student achievement and dropout behavior. The original sample consisted of a stratified random sample of 7th to 12th grade students. During the summer of 1971, the federal court ordered the Waco Independent School District to bus 1600 black students from the LaVega Independent School District to previously all white schools in the Waco district to desegregate City of Waco schools. Approximately 240 minority students from the original sample were now to be bused to WISD schools. Original measures for school socio-economic and interracial climate, achievement test scores, self-concept measures, I. Q. scores and the usual demographic data indicated a potential for research seldom available. The overall design of the study is that of a three year longitudinal panel. Data reported in this paper are from the first and second waves of collection (and spring of 1971 and 1972). Multiple regression analysis is used since it allows one to weigh the relative effects of contextual and individual attributes with all other factors controlled. Dummy variable techniques are used for non-interval scale and dichotomous variables.

FINDINGS

Table 1 contains means and standard deviations for all variables. Generally

speaking, the differences in mean achievement scores for bused and non-bused students are small, with bused students having slightly lower achievement levels than non-bused students. Attitudes of bused students toward their receiving schools were generally favorable. Responses of bused black students to the question of whether they liked their new school better, about the same or less than their previous school were: 37% liked the new school better; 34% liked their new school about the same; and 29% liked their new school less. When asked of their initial reaction to busing, 24% were favorable; 37% neutral; 39% unfavorable. Parental initial reaction was 20% favorable; 34% neutral and 46% unfavorable. When those who were favorable to busing were asked what they disliked about it - 39% cited no special reason;51% cited personal reasons, such as the smell of the exhaust or the carelessness of the drivers; 6% cited racial reasons, such as they did not like to go to a school where whites made fun of them; 3% cited educational reasons and 1% cited problems in relating to the teachers. Whereas 73% of non-bused blacks thought integration among racial and ethnic groups was a good thing, only 68% of bused blacks felt this way. On the other hand, whereas 43% of the bused students felt busing was the best way to achieve school desegration, only 36% of the non-bused blacks responded this way.

Findings from the separate regression analyses (Table 2) run for bused and non-bused black students,with achievement test scores as the dependent variable ($R^2$'s of .41 and .65 respectively) reveal that 4 factors exercise the largest effect on achievement performance for both groups. Measured I. Q. has the largest effect, as one would expect. I. Q. was included in the regression equation so the effect of other factors might be evaluated with the influence of I. Q. controlled out. The second most important factor is family socio-economic status, followed by sex of respondent and the respondent's educational expectations. Higher achievement is related to higher family socio-economic status, being female and

having expectations of continuing formal education beyond the high school level. Self-concept is also an important determinant of achievement, although its effect is not as large as the first four factors. With the remaining factors, the experience of bused and non-bused black students exercises a variety of interactions.

For bused black students, the next most important determinant of achievement is the perceived amount of racial hostility at the receiving school. Low amounts of hostility are conducive to higher achievement scores. Three other factors are statistically significant in their effect on bused student achievement: respondent's attitudes toward busing and integration, amount of interracial friendship, and self-concept. As expected, favorable attitudes toward busing and integration, and larger numbers of interracial friendships are conducive to higher achievement level performance.

While the same three factors are statistically significant for the achievement of non-bused black students, changes in coefficient signs indicate the effects of these factors are opposite in direction as for bused students. For example, whereas attitudes favorable to busing are conducive to achievement for bused students, unfavorable attitudes toward busing are conducive to achievement for the non-bused students. The situation is similar with respect to the variable of attitude toward integration. Unfavorable attitudes toward integration are conducive to higher achievement for non-bused students. Fewer, rather than more, interracial friendships are conducive to higher achievement for non-bused students. Thus, while the three variables hypothesized as important for the achievement of minority students are, in fact, significant for bused and non-bused students, their effects are opposite for each group.

## SUMMARY AND CONCLUSIONS

While differences in achievement between bused and non-bused students are not significantly different, this may be due to the small amount of exposure time

students have occupied in the different treatment settings. Significant differences may result when data from the third year of collection are available. The major determinants of achievement are the same for both groups of students: measured I.Q., family socio-economic status, sex of respondent, and educational expectations. The most surprising result is the interaction between black student's interracial friendships, attitudes toward busing, attitudes toward integration and bused or non-bused status. The interpretation offered to explain this finding is that the configuration of variables for each group (positive for bused students, negative for non-bused students) is a configuration which is appropriate to the dominant normative climate of the school which the student attends, and is related, therefore, to both self-concept and achievement. To be specific, if a bused student has a negative attitude toward busing and integration and has few friendly interracial contacts, he does not fit with the dominant normative climate of the school. He most likely is not happy with his situation and one would not expect him to be positively benefitted in terms of his academic achievement. For the bused student who has favorable attitudes toward busing and integration and has many interracial friendships, however, one would expect his self-concept to be positive, with a resulting effect on achievement. The regression analyses in this study bear this out. Higher achievement among bused students is determined in part, by favorable attitudes and perceived interracial friendship and cooperation. For the non-bused student in a predominantly lower socio-economic, black school, favorable attitudes toward busing, integration and many interracial friendships may earn him the title of "tom". One would not expect such attitudes to be rewarded by his school peers. A "whitey lover" at the black school is certainly a candidate for lower self-concept, with a resulting low achievement performance.

While the results of this study are inconclusive concerning the benefits of busing for black student achievement performance, school desegregation does

appear to reverse the direction of some of the determinants of high achievement performance. The influence of school desegregation on the development of attitudes favorable to integration and the development of interracial friendships provide a significant new input for American society. The development of such cooperative integrated relationships indicates a significant potential to move away from what the Riot Commission Report designated as a society of two increasingly hostile and separate camps. The development of positive and cordial intergroup relations may be the most important step in the effort to achieve equality of educational opportinity. Current and future research of a longitudinal design will permit an evaluation of the effects of such integrated climates on student achievement.

TABLE 1

Means, Percentages and Standard Deviations of Variables

| VARIABLE | Form A for Non-Bussed Students | Form B for Bussed Students |
|---|---|---|
| Sex | 50.8% male; 49.2% female | 56.1% male; 43.9% female |
| Age | 15.5 years, S.D. 1.3 | 15.1 years, S.D. 1.1 |
| Family SES | 12.04, S.D. 3.6 | 12.81, S.D. 3.18 (higher SES) |
| Fam. Authority Struc. | 3.39, S.D. 1.4 | 3.28, S.D. 1.4 (less democrati |
| Self-Concept | 52% high | 65% high |
| Educational Expectations of four years of college | 48% | 42% |
| Integration attitude | 72.7% favor integration | 68.0% favor integration |
| Attitude toward bussing | 35.5% favor bussing | 43.3% favor bussing |
| No. of close Anglo friends | 4.2% half or more | 26% half or more |
| California Test of Mental Maturity | 92.63, S.D. 15.8 | 86.30, S.D. 13.7 |
| California Achievement Test-Reading | 76.99, S.D. 17.3 | 74.48, S.D. 22.9 |
| Attitude Toward the Receiving School | like it better than previous, | 37% |
| | about the same | 34% |
| | like it less than prev. school | 29% |
| | | 100% |
| Parents Initial Reaction to Bussing | Positive | 20% |
| | Neutral | 34% |
| | Negative | 46% |
| Your Initial Reaction to Bussing Announcement | Positive | 24% |
| | Neutral | 37% |
| | Negative | 39% |
| Reasons Cited by those with positive attitudes toward bussing | | |
| | Personal | 26% |
| | Educational | 4% |
| | Racial | 1% |
| | Peer Group | 8% |
| | Just like it | 61% |
| Reasons Cited by those with negative attitudes toward bussing | | |
| | Personal | 51% |
| | Educational | 3% |
| | Racial | 6% |
| | Peer Group | 1% |
| | Just don't like it | 39% |

TABLE 2

REGRESSION ANALYSIS FOR THE DEPENDENT VARIABLE:
ACHIEVEMENT TEST SCORES

| INDEPENDENT VARIABLES | Non-Bussed | Bussed |
|---|---|---|
| Measured I. Q. | .491 | .512 |
| Family SES | .397 | .169 |
| Educational Expect. | .262 | .163 |
| Sex of Respondent | .203 | .126 |
| Self-Concept | .164 | .158 |
| Perceived Racial Hostility | .162 | .148 |
| Attitude toward Bussing | -.143 | .125 |
| Attitude toward Integration | -.131 | .108 |
| Interracial Friendships | -.094 | .078 |

(All coefficients are beta, or path coefficients)

| | |
|---|---|
| $R_2$= .808 | $R_2$= .639 |
| $R^2$= .654 | $R^2$= .412 |

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